

Name _____

AP Chemistry

Oxidation-Reduction Practice

Oxidation States: For each compound, determine the oxidation state for the underlined element.

a) $\underline{\text{N}}\text{H}_3$ _____

n) $\text{H}\underline{\text{C}}\text{H}\text{O}$ _____

b) $\text{H}_2\underline{\text{S}}\text{O}_4$ _____

o) $\underline{\text{Mn}}\text{O}_2$ _____

c) $\text{Zn}\underline{\text{S}}\text{O}_3$ _____

p) $\text{K}\underline{\text{C}}\text{H}\text{O}_3$ _____

d) $\underline{\text{Al}}(\text{OH})_3$ _____

q) $\underline{\text{Pb}}\text{O}_2$ _____

e) $\underline{\text{Na}}$ _____

r) $\underline{\text{Pb}}\text{SO}_4$ _____

f) $\underline{\text{Cl}}_2$ _____

s) $\text{K}_2\underline{\text{S}}\text{O}_4$ _____

g) $\text{Ag}\underline{\text{N}}\text{O}_3$ _____

t) $\underline{\text{N}}\text{H}_4^+$ _____

h) $\underline{\text{Cl}}\text{O}_4^-$ _____

u) $\text{Na}_2\underline{\text{O}}_2$ _____

i) $\underline{\text{S}}\text{O}_2$ _____

v) $\underline{\text{Fe}}\text{O}$ _____

j) $\text{K}_2\underline{\text{Cr}}_2\text{O}_4$ _____

w) $\underline{\text{Fe}}_2\text{O}_3$ _____

k) $\text{Ca}(\underline{\text{Cl}}\text{O}_3)_2$ _____

x) $\text{Si}\underline{\text{O}}_4^{4-}$ _____

l) $\text{K}_2\underline{\text{Cr}}_2\text{O}_7$ _____

y) $\text{Na}\underline{\text{I}}\text{O}_3$ _____

m) $\text{H}\underline{\text{P}}\text{O}_3^{2-}$ _____

z) $\underline{\text{Cl}}\text{O}_3^-$ _____

Oxidation and Reduction Reactions: For each reaction below, write the oxidation half reaction and the reduction half reaction. Then identify the oxidizing agent and reducing agent.



